

ABSTRACT

Provided is a light coupling apparatus that forms an etch structure complex comprising a total reflection surface / an anti-reflection surface within a substrate to improve coupling efficiency with incident light and
5 responsivity of a photodetector device, whereby a surface-illuminated photodetector or an edge-coupled photodetector are all integratable, and it is possible to reduce the degree of difficulty during packaging and to improve the responsivity of the photodetector at low costs.